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**G4V**

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A63F**

(54) **Gaming and amusement machines**

(57) In a gaming or amusement-with-prizes machine, following a surprise jackpot award given on rare random occasions at the start of a game or at the end of a non-winning game, the player is given a high-odds chance (e.g. fifty-fifty) directly on the following game of the award being repeated, and then, if the award is repeated, he is given another high-odds chance of the award being repeated again, and so on. The jackpot award, and each of the repeated awards, may be a jackpot prize or a feature which gives the chance of a jackpot prize, for example, a 'nudge' feature.

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## SPECIFICATION

## Gaming and amusement machines

- 5 This invention relates to gaming and amusement machines of the kind generally known as "fruit machines", in particular an "amusement-with-prizes" machine.

- Currently there are, in fruit machines, numerous  
10 "features" which follow a non-winning spin of the reels, such as the chance of one or more nudges, or holds, or so-called "trails", which can build up to a possible chance of a jackpot. Indeed the value of prizes awarded in a given machine on the features in  
15 many cases exceeds that of the prizes awarded on the achievement of a winning line in the initial game.

- It is also well-known, when a win is achieved in the initial game, to give the player a chance to gamble all or part of his win on a "double-or-quits" basis, or  
20 sometimes on a more complicated basis.

- The aim of the present invention is to offer the player the possibility of winning a surprise jackpot which may be repeated. According to the invention we propose that, not only is the player given a sur-  
25 prise jackpot award on rare random occasions at the start of a game or at the end of a non-winning game, but, following such an award there is also a high-odds chance (for example fifty-fifty) directly on the following game of the award being repeated, (with  
30 the same or a different amount) and then, if the award is repeated, there is yet another high-odds chance on the next game of the award being repeated again. This high-odds repeat sequence could even be continued indefinitely, so that in theory there is no  
35 limit to the number of awards given, although it will be appreciated that the odds (assuming they are fifty-fifty each time) of the award being repeated twice are only one in four, and of the award being repeated three times in succession they are only one in eight,  
40 and so on.

The surprise jackpot award, and each of the repeated awards, if given, may be a jackpot prize (achieved, for instance, by the reels being spun to a pre-arranged combination that awards a jackpot).

- 45 Alternatively, the surprise jackpot award, and each of the repeated awards, if given, may comprise a feature which gives a chance of a jackpot prize (for instance, a random or fixed number of nudges may be awarded or a time period may be set within which  
50 the player has the opportunity of "nudging" the reels to a winning combination).

The value of the jackpot award given may be different on successive steps in the sequence, and could be on an increasing or decreasing scale.

- 55 The high-odds repeat sequence makes the machine more attractive to play since there is the possibility that a player can win several jackpot prizes in succession. Also the possibility that the player may be unexpectedly awarded a surprise jack-  
60 pot or a surprise chance to win a jackpot increases the attractiveness of the machine.

- It is to be appreciated that the high-odds chance of a jackpot award being repeated is considerably greater than the random chance of a jackpot prize or  
65 feature being awarded during normal play of the

machine. This also encourages the player to continue playing the machine after he has gained a surprise jackpot award. The high-odds chance may be approximately a fifty-fifty chance. Preferably the  
70 high-odds chance is slightly less than a fifty-fifty chance (for example forty-nine - fifty-one).

- The initiation of the awarding of a jackpot may be effected by the player pressing a special button (which is lit up when the chance is on offer, that is on  
75 a rare random occasion when a surprise award is given). However, the award, is preferably obtained by pressing the normal "start" button, and can only be done if the player is already in credit. Likewise, if the offer comes up a second time, it only comes up if  
80 the player is in credit, and this applies each successive time.

- In a typical example, on rare occasions following a non-winning game (typically once in 800 games), the insertion of a coin to start a first game results in a  
85 special panel being illuminated, indicating the surprise jackpot award. (If the player already has one or more game credits in the machine then the panel will light up on completion of the previous game). The player then knows that he will with certainty obtain a  
90 jackpot award of some level. In one embodiment to obtain the surprise jackpot award he presses the "start" button and the reels will automatically be spun to halt at one of two possible pre-determined combinations resulting in a higher or lower jackpot  
95 of, say, £3 or £1.00. In another embodiment the special panel may indicate that nudges are available as the surprise jackpot award, for instance on the basis of a set time period within which the player has the chance to "nudge" the reels to a jackpot prize. The  
100 maximum win obtainable from the nudges may be indicated on the machine. Following the surprise award, provided he is still in credit, there is an immediate forty-nine - fifty-one chance that the panel will be illuminated again, giving him either the certainty of a further jackpot or, the chance to nudge the  
105 reels to a jackpot. If he is not already in credit, there is still a forty-nine - fifty-one chance that when he inserts a coin, a further jackpot prize or nudges will be offered. In the first embodiment, when the "start"  
110 button is pressed this again results in the reels spinning automatically to predetermined positions awarding a higher or lower jackpot which may or may not be the same as the previous one. Directly on the next game there is a forty-nine - fifty-one chance of the  
115 panel lighting up yet again, and the process is repeated indefinitely until the machine reverts to a normal game.

In a modification, if, say, a £1 jackpot is awarded or gained by nudging, the player may be given the opportunity of gambling this to increase it at the risk of  
120 losing it altogether.

- It will be understood that the term "surprise jackpot award" as used herein refers broadly to any type of surprise jackpot prize or feature. For instance the  
125 award may comprise the amount of coins, tokens or nudges indicated by an illuminated jackpot panel or by a jackpot "meter" in the form of an L.E.D. or an alphanumeric display, there being a high-odds chance of the same or a different amount being awarded directly on the next game. The award may even  
130

comprise a "wild reel feature" in which after the reels have been spun at least one of the symbols is illuminated to indicate that that reel is wild to produce a winning combination with the symbols on the other

5 reels. Another possibility is that the award may comprise a hold feature in which, for example, one reel is held and the other reels automatically spin to a matching winning combination. The essence of the present invention is that a surprise jackpot award is  
10 given and there is then a high odds chance of the award being repeated directly on the next game.

When we have spoken above of jackpots and awards it will be understood that we specify no particular lower limit, and the system according to the  
15 invention could, if desired, be applied to relatively low awards. Also, where we have spoken of reels being spun, it will be understood that we intend this term to cover also the known non-mechanical equivalent of reels, such as Panascope or video displays.  
20 Again, the term "fruit machine" is intended to cover any machine in which a sequential display of an array of successive symbols is halted at random and certain resulting combinations of symbols are then awarded prizes.

## 25 CLAIMS

1. A gaming or amusement-with-prizes machine of the kind known as a fruit machine in which not only  
30 is the player given a surprise jackpot award, on rare random occasions, at the start of a game or following a non-winning game, but, following such an award, there is also a high-odds chance directly on the following game of the award being repeated, and then,  
35 if the award is repeated, there is another high-odds chance on the next game of the award being repeated again.

2. A machine as claimed in claim 1 in which the high-odds chance is approximately a fifty-fifty chance.  
40

3. A machine as claimed in claim 2 in which the high-odds chance is slightly less than a fifty-fifty chance.

4. A machine as claimed in any of claims 1 to 3 in  
45 which the jackpot award and each of the repeated awards, if given, comprises a jackpot prize.

5. A machine as claimed in claim 4 in which the jackpot prize is achieved by the reels being spun to a pre-arranged combination that awards a jackpot.

50 6. A machine as claimed in any of claims 1 to 3 in which the jackpot award, and each of the repeated awards, if given, comprises a feature which gives the chance of a jackpot prize.

7. A machine as claimed in claim 6 in which the  
55 feature giving the chance of a jackpot prize is a nudge feature.

8. A machine as claimed in claim 7 in which an award can only be repeated if the player is in credit, or if not in credit, when a coin is inserted into the  
60 machine.

9. A machine as claimed in claim 8 in which the jackpot award, or each of the repeated awards, if given, is obtained by the player pressing the normal "start" button.

65 10. A machine as claimed in any preceding claim

in which the rare random occasions when the player is given a surprise jackpot award occur approximately once in 800 games.

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# (12) UK Patent Application (19) GB (11) 2 191 030 (13) A

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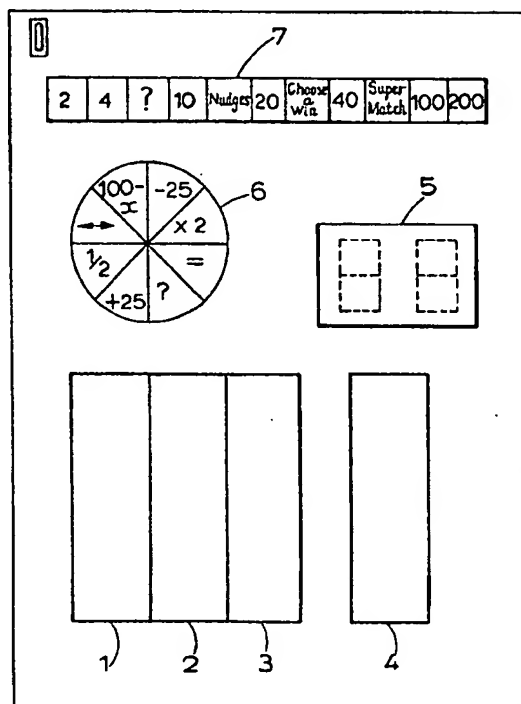
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## (54) Gaming and amusement machines

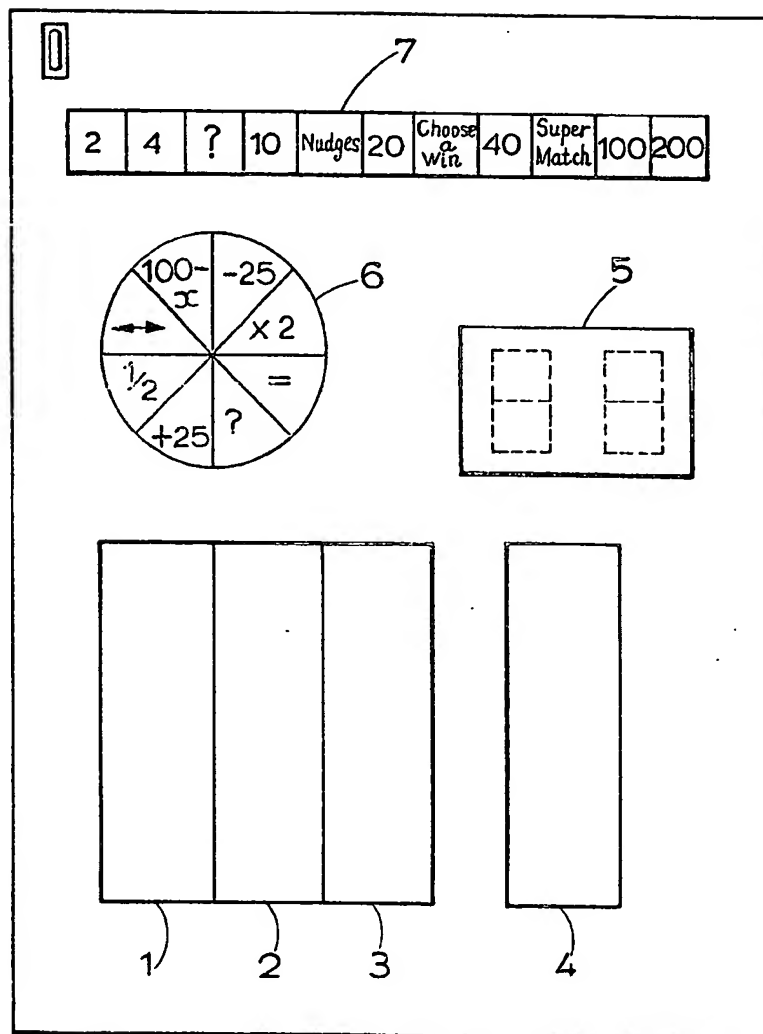
(57) In a fruit machine having three normal reels (1, 2 and 3) and a fourth reel (4) which carries numbered symbols, a special awards feature is controlled by a number count displayed on a two-digit counter (5) and which is incremented progressively every time a game is played. During the special awards feature the player is given an opportunity to spin the fourth reel (4) and each time he does so he advances one step along an award trail (7) towards a jackpot. However, the number count (5) is decremented by the figure on the fourth reel (4) which comes to a halt on the win line after each spin on the fourth reel (4) and the special awards feature is lost when the number count (5) falls below zero. The number count may also be influenced on occasions by other factors such as by arithmetical operations on a feature wheel display (6), the particular operation being determined at random or under the control of the player.



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## SPECIFICATION

### Gaming and amusement machines

5 This invention relates to coin-released or token-released gaming or amusement-with-prizes machines of the kind generally known as fruit machines, in which a number of reels, usually three or four, carrying symbols on their  
10 peripheries, are sent in rotation after insertion of a coin or token and when they come to a halt if the symbols on the reels in a certain position, the so-called win line, make up one of a number of predetermined combinations a  
15 prize is awarded, e.g. in the form of cash, tokens, credits, or further games. Instead of actual reels, their equivalent may be used, e.g. discs, or representations of symbols projected optically or in the form of images on a video  
20 screen. Such gaming or amusement-with-prizes machines will hereinafter be referred to as of the kind set forth.

In addition to prizes awarded on the result of the initial game there are also numerous  
25 features offered, often at random, following a non-winning game, e.g. so-called ladders, trails, and other opportunities to gain bigger prizes; it is also possible, following a winning game, to gamble the prize already won.

30 The aim of the invention is to provide a novel form of game of this general kind but having new features which are particularly attractive to the player. According to the invention, in a gaming or amusement-with-prizes  
35 machine of the kind set forth a special awards feature is controlled by a number count which is incremented or decremented progressively and/or at random and decremented or incremented by the amount of a figure which re-  
40 sults from the spinning of a further reel, the opportunity to spin this further reel being awarded following a non-winning game and giving the chance of progress along the awards feature, for instance along an awards  
45 'ladder' or 'trail' leading to a jackpot, but in the event of the number going beyond a predetermined minimum or maximum the feature is lost.

Preferably, the further reel carries symbols  
50 representing numbers, the number count is incremented when normal games are played and decremented by the number represented by the symbol on the further reel which comes to a halt on the win line after each spin of the  
55 further reel, the feature being lost when the number count falls below a predetermined minimum, conveniently zero.

Thus, when the player is given the opportunity to spin the further reel (usually a fourth  
60 reel), he wants to make use of it as many times as he can, because each time he spins it he is advanced further along the ladder or trail towards the jackpot, but at the same time every spin results in a number which de-  
65 creases the number count and increases the

risk of that count going below zero and losing him the feature altogether.

It will be understood that arithmetically the above-described system could, within the  
70 scope of the principle behind the invention, be inverted, in that the number on the counter could be decremented progressively or at random, and the numbers that appear on the fourth reel are added to it rather than sub-  
75 tracted, and in that case the feature is lost when the number goes beyond a predetermined maximum.

It is believed that this principle of using a counter, on which the number is incremented and decremented by other factors, to control  
80 a feature, the feature being lost when the number oversteps a certain limit, is broadly new.

In one preferred example the number is a  
85 two-digit one, i.e. runs from zero to 99, and is prominently displayed on a counter. The number count may be increased or decreased progressively by a given number, such as one, every time a game is played. Alternatively or  
90 additionally the number count may be altered on certain occasions in accordance with one of a number of arithmetical operations determined either at random or under the control  
of the player in an additional feature.

95 The present invention will now be described, by way of example only, with reference to the accompanying drawing. The drawing shows a fruit machine having three reels 1, 2 and 3 which carry fruit symbols, a fourth  
100 reel 4, a two-digit counter 5, a feature wheel display 6 and an award trail 7.

During play on the fruit machine ordinary games may be played either on the first three  
105 reels 1, 2 and 3 or, when the fourth reel 4 carries fruit symbols, on all four reels. Regardless of whether or not the fourth reel 4 takes part in an ordinary game it carries numbered symbols, for instance figures superimposed on fruit symbols or figures by themselves.

110 The two-digit counter 5 may, for instance, comprise a numeric liquid crystal display which can display any number between zero and 99. Every time a game is played on the machine the number displayed on the counter 5 is progressively increased by one up to a maximum  
115 of 99. The number displayed on the counter 5 may also be influenced at random by other factors. For example, in one typical case, every time a cherry symbol lands on the win line in an ordinary game it is arranged to reverse  
120 the digits displayed on the counter (e.g. if the number displayed was 19, it becomes 91). It will be apparent that the possibilities on these lines are endless.

125 Another such possibility involves the feature wheel display 6 on the display panel. A ring of boxes containing instructions for different arithmetical operations to be performed on the number on the counter is made available on  
130 certain occasions and the different boxes flash

at random. When the flashing stops the instruction in that box is performed. The instructions may, for example, be to double the number on the counter or to halve it, to subtract it from 100, to reverse its digits, or to add or subtract a certain fixed amount. The player may be given some degree of control over the wheel feature, by having a stop button by which he can try to bring the flashing to stop on the particular arithmetical instruction that suits his purpose.

This wheel feature may be made available at random following a non-winning game, or when a special symbol on one of the normal reels 1, 2 and 3 comes to a halt on the win line.

When the special awards feature of the invention becomes available, for example randomly at the end of a non-winning game or on completion of a 'fruit ladder' or 'numbers trail', the player is given an opportunity to spin the fourth reel 4 on its own for as many times as he likes with the aim of advancing as far as possible along the award trail 7 without losing the feature. The award trail 7 may be of a known kind and in the example shown in the drawing it has eleven steps with prize awards increasing from a small award at one end to a jackpot at the other end. The prize awards may be cash awards, tokens, credits or feature awards leading to further prizes, for instance 'nudges' or 'choose-a-win' features.

During the special feature, each time the player spins the fourth reel 4 he advances one step along the award trail 7 to an increased award. However every time the reel 4 is spun, the figure appearing on the win line when it comes to a halt is deducted from the figure appearing on the counter and as soon as that figure goes below a predetermined minimum, zero, the feature is lost altogether and the player either loses everything or is awarded a minimum consolation award such as two credits.

Thus when the player is playing the special feature he must decide either to collect the award he has reached on the award trail 7 or to spin the fourth reel 4 another time in the hope of advancing along the award trail 7 but with a risk of losing the feature and the award already gained. The special feature therefore increases the attractiveness of the machine to a player.

It will be understood that during the special feature other symbols on the fourth reel 4 apart from numbers may also be used to manipulate the figure on the counter to the advantage or disadvantage of the player. For instance, the wheel feature described above may come into operation during the special feature when a special symbol on the fourth reel 4 comes to a halt on the win line. All the time during the special feature, the player is endeavouring to advance along the trail to reach a jackpot but the more use he makes of

the fourth reel spins to do this the more he risks pushing the value of the number displayed beyond the limit at which he loses everything (the limit being zero in the example described).

## CLAIMS

1. A coin-released or token-released gaming or amusement-with-prizes machine of the kind set forth in which a special awards feature is controlled by a number count which is incremented or decremented progressively and /or at random and decremented or incremented by the amount of a figure which results from the spinning of a further reel, the opportunity to spin the further reel being awarded following a non-winning game and giving the chance of progress along the awards feature, but in the event of the number going beyond a predetermined minimum or maximum the feature is lost.

2. A gaming or amusement-with-prizes machine as claimed in claim 1 in which the further reel carries symbols representing numbers, the number count is incremented when normal games are played and decremented by the number represented by the symbol on the further reel which comes to a halt on the win line after each spin of the further reel, the feature being lost when the number count falls below a predetermined minimum.

3. A gaming or amusement-with-prizes machine as claimed in claim 2 in which the predetermined minimum is zero.

4. A gaming or amusement-with-prizes machine as claimed in any of the preceding claims in which the number count is displayed on a two-digit counter.

5. A gaming or amusement-with-prizes machine as claimed in any of the preceding claims in which the number count is increased or decreased progressively by a given number every time a game is played.

6. A gaming or amusement-with-prizes machine as claimed in any of the preceding claims including an additional feature by means of which the number count is altered on certain occasions in accordance with one of a number of arithmetical operations determined either at random or at least partly under the control of the player.

7. A gaming or amusement-with-prizes machine as claimed in claim 6 in which the additional feature is made available at random following a non-winning game.

8. A gaming or amusement-with-prizes machine as claimed in claim 6 in which the additional feature is made available when a special symbol on one of the normal reels or on the further reel comes to a halt on the win line.

9. A gaming or amusement-with-prizes machine as claimed in any of the preceding claims in which after each spin of the further reel during the special awards feature, the player advances along an award ladder or trail

leading to a jackpot, provided that the number has not gone beyond the predetermined minimum or maximum.

10. A gaming or amusement-with-prizes  
5 machine substantially as described herein with reference to the accompanying drawing.

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